

REMARKS

The Examiner and her supervisor are thanked for the interview courteously granted to the undersigned, in connection with the above-identified application. During the interview, the objection to the drawings, the various rejections under the first and second paragraphs of 35 USC 112, and the various prior art rejections under 35 USC 102 and 103, were discussed. In particular, Figs. 1, 3, 6 and 9 were discussed, with respect to the claimed subject matter. The low-luster pattern ink layer, low-gloss region and surface protective layer were discussed, with respect to the structure shown in Figs. 1 and 3. In addition, low-luster pattern ink layers having different thicknesses were discussed in connection with Fig. 6; and fine particles having an average particle size as in the present claims were discussed with respect to Fig. 9. The undersigned explained what was meant by the low-luster pattern ink layer and low-gloss region, with recited structure providing the first, low-gloss region that is visually recognized as a concave portion, even where the protective surface layer is convex over the low-gloss region. During the interview, and particularly noting the rejection under the first paragraph of 35 USC 112, it was agreed to add low-gloss and low-luster back into the claims, avoiding bases for rejection under the first paragraph of 35 USC 112. Moreover, in connection with claim 6, sub-layers were to be defined with respect to the portions of the pattern ink layer having different thicknesses, the language of first and second sub-regions being retained. In addition, during the aforementioned interview differences between the present invention and the teachings of the applied references were discussed, and advantages achieved by the present invention due to these differences were also discussed. No overall agreement was reached during the interview.

Applicants have amended their claims in light of discussions during the aforementioned interview, and so as to further clarify the definition of various aspects of the present invention. Specifically, Applicants have amended claim 1 to restore recitation of the “low-luster” pattern ink layer; and to recite that the low-luster pattern ink layer is formed on a part of the substrate, leaving a part of the substrate on which the low-luster pattern ink layer is not formed. Claim 1 has been further amended to recite a first, “low-gloss” region which is located in a first portion of the surface protective layer just above the low-luster pattern ink layer and in the vicinity of this first portion, with a second region, located in the surface protective layer in a second portion other than the first portion and the vicinity of the first portion, the first, low-gloss region having a lower gloss than the second region. Claim 1 has been still further amended to recite that the low-luster pattern ink layer is formed of a low-luster pattern ink having a property of interacting with the ionizing radiation-curable resin composition to cause elution, dispersion and mixing therebetween. Note, for example, the paragraph bridging pages 19 and 20 of Applicants’ specification, as well as the sole full paragraph on page 20 thereof.

Claim 2 has been amended to restore recitation of the pattern ink layer being a “low-luster” pattern ink layer, to recite that the low-luster pattern ink layer is formed on part of the substrate, as in claim 1, and to recite that the low-luster pattern ink has a property of interacting with the ionizing radiation-curable resin composition to cause elution, dispersion and mixing therebetween.

Claims 3 and 5 have been amended in light of recitation of “low-luster” pattern ink and “low-luster” pattern ink layer; and claim 6 has been amended to recite that the low-luster pattern ink layer has first and second “sub-layers” of different thicknesses. Claim 7 has been amended to recite that an average particle size of

the fine particles is larger than a maximum thickness of the surface protective layer located just above the low-luster pattern ink layer “such that the fine particles are protruded on the surface of the surface protective layer above the low-luster pattern ink layer”. See, for example, the second full paragraph on page 33 of Applicants’ specification. Claims 9, 12, 14, 15, 17, 18, 23, 25, 26 and 27 have been amended in light of amendments to claims 1 and 2; and claim 21 has been amended consistent with amendments to claim 7, previously discussed.

In addition, Applicants are adding new claim 29 to the application. Claim 29, dependent on claim 1, recites that the low-luster pattern ink forming the low-luster pattern ink layer contains a non-crosslinked urethane resin. Note, for example, the sole full paragraph on page 20 of Applicants’ specification.

Noting the concurrently filed RCE Transmittal, it is respectfully submitted that entry of the present amendments is clearly proper, notwithstanding the Finality of the Office Action mailed December 13, 2007; and it is respectfully submitted that the present amendments are a proper Submission for this RCE Transmittal.

The objection to claim 6 in reciting first and second sub-regions, the Examiner contending that the “sub-regions” are not in the original specification as filed, is noted. Claim 6, as presently amended, recites that a portion just above and in the vicinity of the first sub-layer is a first sub-region, and a portion just above and in the vicinity of the second sub-layer is a second sub-region having a relatively high gloss as compared to that of the first sub-region. Such sub-layers are portions of the low-luster pattern ink layer having different thicknesses, as can be seen in Fig. 6 of Applicants’ original disclosure, described, for example, in the paragraph bridging pages 24 and 25 of Applicants’ specification. Thus, contrary to the conclusion by the Examiner, it is respectfully submitted that the first and second sub-regions are in fact

shown and described in Applicants' original disclosure. While the term "sub-region" may not be in Applicants' original disclosure, the structure represented thereby is clearly shown; and it is respectfully submitted that Applicants' need not use exact terms as in their specification.

The objection to the drawings as set forth on pages 2 and 3 of the Office Action mailed December 13, 2007, is noted. Such objection is respectfully traversed, especially in light of the claims as presently amended. Thus, and as discussed during the aforementioned interview, the claims do not include the expressions "first sub-portion", "second portion" and "sub-portions". The claims do recite sub-regions. However, it is respectfully submitted that the sub-regions as in the present claims are clearly shown, for example, in Fig. 6, the sub-regions being shown by, e.g., reference characters 4-a, 4-b, etc., to be illustrative and not limiting.

As Applicants respectfully traverse the objection to the drawings, it is respectfully submitted that no replacement drawings are necessary.

Applicants respectfully traverse the rejection of their claims under the first paragraph of 35 USC 112, as set forth on pages 3 and 4 of the Office Action mailed December 13, 2007, especially insofar as this rejection is applicable to the claims as presently amended. Thus, the claims have been amended to re-instate low-gloss and low-luster into the claims, whereby the basis for rejection of claims under the first paragraph of 35 USC 112, set forth in the last paragraph on page 3 of the Office Action mailed December 13, 2007, is moot.

In connection with claim 6, it is respectfully submitted that the first and second sub-regions are clearly shown in the original disclosure, for example, in Fig. 6 and the description in connection therewith, e.g., in the paragraph bridging pages 24 and 25 of Applicants' specification. Clearly, the structure represented by the terms

“first sub-region” and “second sub-region” in the claims is shown in Applicants’ original disclosure, such that the rejection under 35 USC 112, first paragraph, set forth in the first paragraph on page 4 of the Office Action mailed December 13, 2007, is improper.

Applicants respectfully traverse the rejection of their claims under the second paragraph of 35 USC 112, as set forth on pages 4 and 5 of the Office Action mailed December 13, 2007, especially insofar as this rejection is applicable to the claims as presently amended. Thus, the Examiner contends that it is not clear where the “second region” of claim 1 is. Claim 1 has been amended to recite that the second region is located in the surface protective layer in a second portion “other than the first portion and the vicinity of the first portion”. Accordingly, it is respectfully submitted that claim 1 as presently amended is clear as to the location of the second region, and what such second region is.

The contention by the Examiner that it is not clear what steps are involved or how the pattern ink layer serves to generate a difference in gloss between first and second regions, is noted. Note that claim 1 as presently amended recites that the low-luster pattern ink layer is formed of a low-luster pattern ink “having a property of interacting with the ionizing radiation-curable resin composition to cause elution, dispersion and mixing therebetween”; and it is again emphasized that the first and second regions are respectively above the low-luster pattern ink layer and above a part of the substrate on which the low-luster pattern ink layer is not formed. It is respectfully submitted that claim 1 as presently amended is clear with respect to first and second regions, and is also clear as to how the pattern ink layer serves to generate a difference in gloss between first and second regions, particularly in light of the disclosure of the method as in Applicants’ specification.

As to the second region and second sub-region, noting, e.g., Fig. 6 and the description in connection therewith, for example, in the paragraph bridging pages 24 and 25 of Applicants' specification, as well as the low-gloss region shown, for example, in Figs. 1 and 3 and the absence of the low-gloss region above other portions of the substrate in Figs. 1 and 3, it is respectfully submitted that the location of the second region is clear; and again noting Fig. 6, it is respectfully submitted that location of the second sub-region is clear.

The contention by the Examiner that claim 1 recites a first and second region, however two regions are mentioned prior, which is confusing and is not in sequential order, is not understood. Claim 1 as presently amended recites a first, low-gloss region, the location of this first, low-gloss region being defined, and a second region, the location of this second region being defined. Claim 6 defines locations of the first and second sub-regions. It is respectfully submitted that one of ordinary skill in the art would have known what is meant by the first and second regions, as well as the sub-regions, and locations thereof, as recited in the present claims, sufficiently to satisfy the requirements of the second paragraph of 35 USC 112.

The additional contention by the Examiner that it is not clear if the first and second portions/sub-portions are mere optical effects or if some material is present, set forth in the paragraph bridging pages 4 and 5 of the Office Action mailed December 13, 2007, is noted. As can be appreciated from Applicants' disclosure, and as can be seen, for example, in the low-gloss region 4 in various of the drawing figures (see, e.g., Figs. 1-3, among other figures), the low-luster pattern ink of the low-luster pattern ink layer can interact with the ionizing radiation-curable resin composition to cause elution, dispersion and mixing therebetween; it is respectfully submitted that Applicants' disclosure as a whole, e.g., on pages 19 and 20 thereof,

provides a description in connection with the low-gloss region as compared with the second region. In any event, noting recitation of the various regions and sub-regions as in the present claims, as well as recitation of properties of the low-luster pattern ink, it is respectfully submitted that the present claims sufficiently define structure such that one of ordinary skill in the art would be able to determine whether any specific decorative material or decorative plate fell within or outside the scope of the claims. Under the present circumstances, the second paragraph of 35 USC 112 requires nothing more. See In re Moore, 169 USPQ 236 (CCPA 1971).

The basis for rejection of claims 7 and 21 under the second paragraph of 35 USC 112, set forth in the first full paragraph on page 5 of the Office Action mailed December 13, 2007, are noted. In view of amendments to claims 7 and 21, defining an average particle size of the fine particles in terms of their function, noting Fig. 9 of Applicants' original disclosure, it is respectfully submitted that the basis for rejection of claims 7 and 21 under the second paragraph of 35 USC 112 is moot.

The basis for rejection of claim 27 under the second paragraph of 35 USC 112, set forth in the second paragraph on page 5 of the Office Action mailed December 13, 2007, is moot, in light of, inter alia, amendments to parent claims to recite a "low-luster" pattern ink layer.

Applicants respectfully submit that all of the claims presented for consideration by the Examiner patentably distinguish over the teachings of the prior art applied by the Examiner in rejecting claims in the Office Action dated December 13, 2008, that is, the teachings of the U.S. patents to Takahashi, No. 6,326,074, to Takeuchi, et al., No. 6,558,799, to Tsukada, et al., No. 5,296,340, to Ogawa, et al., No. 5,266,397, and to Klun, et al., No. 4,855,184, under the provisions of 35 USC 102 and 35 USC 103.

It is respectfully submitted that these references as applied by the Examiner would have neither taught nor would have suggested such a decorative material, or decorative plate, as in the present claims, including, inter alia, the low-luster pattern ink layer formed on part of the substrate and a surface protective layer which is present on and in direct contact with the pattern ink layer so as to cover a whole surface including both a region where a low-luster pattern ink layer is formed and a region where no pattern ink layer is formed, and with the surface protective layer being provided with a first, low-gloss region located in a portion just above the pattern ink layer and in the vicinity of this portion and with a second region, the first region having a lower gloss than the second region, the pattern ink layer serving to generate a difference in gloss between the first and second regions, the first region being visually recognized as a concave portion, and with pattern ink of the pattern ink layer having a property of interacting with the ionizing radiation-curable resin composition for forming the surface protective layer to cause elution, dispersion and mixing therebetween. See claim 1. Note also claim 19.

In addition, it is respectfully submitted that these references would have neither taught nor would have suggested such a decorative material as in the present claims, having the pattern ink layer formed on part of the substrate and a surface protective layer present on and in direct contact with the pattern ink layer so as to cover a whole surface including regions where the pattern ink layer is formed and where no pattern ink layer is formed, the pattern ink layer serving to generate a difference in gloss between the region where the pattern ink layer is formed and the region where no pattern ink layer is formed, the pattern ink which forms the pattern ink layer containing a non-crosslinked urethane resin as a binder and the ionizing radiation-curable resin composition containing a (meth)acrylate monomer, and

wherein the pattern ink has a property of interacting with the ionizing radiation-curable resin composition for forming the surface protective layer to cause elution, dispersion and mixing therebetween. See claim 2. Note also claim 28.

According to aspects of the present invention, it is important that the low-luster pattern ink has a property of interacting with the ionizing radiation-curable resin composition that forms the surface protective layer 5. By providing such surface protective layer and the low-luster pattern ink layer as in the present claims, the, e.g., resin component of the low-luster pattern ink layer and the surface protective layer are interacted with each other to cause partial elution, dispersion and mixing therebetween. In such a case, the respective resin components of the ink contained in the low-luster pattern ink layer and the uncured ionizing radiation-curable resin are not completely compatibilized with each other for a short period of time, but are kept in a suspended state and located in a portion just above the low-luster pattern ink layer and in the vicinity of this portion, so that the suspended portion scatters light to form the low-gloss region. When the surface protective layer is crosslinked and cured while maintaining the suspended state, the suspended state is fixed, so that the low-gloss region is formed in part of the surface protective layer, above the low-luster pattern ink layer, and is recognized as a concave portion due to optical illusion. Note, for example, the paragraph bridging pages 19 and 20 of Applicants' specification.

As will be shown infra, in Takahashi, the nonpenetrable layer 5 is formed for preventing the penetration of the ionizing radiation curing resin (see column 2, lines 54-60 of Takahashi), and is formed by an ink which is impenetrable by an ionizing radiation curing resin constituting the top coat (see column 5, lines 42-50). It is respectfully submitted that such layers described in Takahashi would have neither

disclosed nor would have suggested the surface protective layer of the ionizing radiation-curable resin composition, together with the low-luster pattern ink layer formed by the specified pattern ink having the property of interacting with the ionizing radiation-curable resin composition, and effects achieved thereby.

Similarly, in Takeuchi, et al. the first resin layer 2A, the second resin layer 2B and the third layer 2C constituting the two-component cured urethane resin layer 2 are layers comprising the two-component cured urethane resin, and the two-component cured urethane resin comprises the specific polyol component and the isocyanate. Therefore, the third layer 2C in contact with the surface protective layer constitutes the two-component cured urethane resin; and, according to Takeuchi, et al., the third layer 2C has a higher crosslinking density. It is respectfully submitted that the disclosure of Takeuchi, et al. having the third layer 2C with the higher crosslinking density in contact with the surface protective layer, would have neither taught nor would have suggested the presently claimed subject matter, including the low-luster pattern ink having a property of interacting with the ionizing radiation-curable resin composition that forms the surface protective layer to cause elution, dispersion and mixing therebetween, and advantages achieved thereby.

Furthermore, it is respectfully submitted that the teachings of the applied references would have neither disclosed nor would have suggested such decorative material as in the present claims, having features as discussed previously, and, moreover, wherein the low-luster pattern ink forming the low-luster pattern ink layer contains the non-crosslinked urethane resin and an unsaturated polyester resin as a binder (see claim 3); and/or wherein the ionizing radiation-curable resin composition contains a (meth)acrylate monomer solely (see claim 4); and/or wherein the pattern ink forming the pattern ink layer has a uneven thickness as in claim 5, particularly

forming regions of relative gloss as in claim 6; and/or wherein the surface protective layer contains fine particles, an average particle size of the fine particles being that set forth in claims 7 and 21, in particular, that set forth in claims 8 and 9, with the amount of fine particles being that set forth in claim 10; and/or wherein the surface protective layer is formed by crosslinking and curing the ionizing radiation-curable resin composition containing ethylene oxide-modified polymerizable compound, and contains particles of baked kaolin, as in claims 11 and 22; and/or wherein a surface of the surface protective layer above the first region has a convex shape (note claims 14 and 25); and/or wherein the material further includes a penetration-preventing layer formed between the substrate and low-luster pattern ink layer, as in claims 15 and 26; and/or wherein the substrate is a penetrable substrate (see claim 16); and/or additional structure of the colored layer, pattern layer and penetration-preventing layer, as in claims 17 and 27; and/or specific woodgrain pattern of the pattern layer as in claim 18; and/or wherein the low-luster pattern ink contains non-crosslinked urethane resin (see claim 29; note also claim 3, referred to previously).

The invention as presently being considered on the merits in the above-identified application is directed to a decorative material, and a decorative plate formed that includes this material, the decorative plate being provided with a pattern which has a visual convexo-concave appearance due to a difference in gloss, the material being excellent in durability.

As described on pages 1-6 of Applicants' specification, various surface decorative plates, and decorative sheets thereof, used for furniture or cabinets, having a laminated structure in which a decorative sheet having, for example, a printed woodgrain pattern, is bonded onto a wood material, an inorganic material, a synthetic resin base material, etc., have been proposed. However, previously

proposed decorative sheets, for such surface decorative plates, have various problems, including requirements of forming appropriate concave portions, providing portions having a satisfactory feel, requiring complicated processing and having high costs.

Against this background, and as a result of intensive research to provide a decorative material having a proper feel and good physical properties, including solvent and abrasion resistance and high laminar strength, the present inventors have found that the desired material can be formed by providing a specific pattern ink layer selectively on a substrate, with a surface protective layer being provided in direct contact with the pattern ink layer and covering a whole surface of a substrate including both a region where the pattern ink layer is formed and a region where the pattern ink layer is not formed, the pattern ink of the pattern ink layer having a specific characteristic with respect to the ionizing radiation-curable resin composition used for forming the surface protective layer. Specifically, the pattern ink has a property that it interacts with the ionizing radiation-curable resin composition for forming the surface protective layer to cause elution, dispersion and mixing therebetween. Through this relationship between the two layers in direct contact with each other, and as described in the paragraph bridging pages 19 and 20 of Applicants' specification, the pattern ink layer and uncured ionizing radiation-curable resin of the surface protective layer are not completely compatibilized with each other, but are kept in a suspended state, so that the suspended portions gather light to form the low-gloss region. When the surface protective layer is crosslinked and cured while maintaining the suspended state, the suspended state can be fixed, so that the low-gloss region 4 (see Figs. 1-3) is formed on a part of the surface

protective layer, over the low-luster pattern ink layer and in the vicinity thereof, and recognized as a concave portion due to optical illusion.

Illustratively, and as set forth in claim 29, the pattern ink contains a non-crosslinking resin, e.g., as a binder resin, including non-crosslinked urethane resin, to effectively provide the elution, dispersion and mixing as discussed previously, achieving effects of the present invention.

To be emphasized is that the low-luster pattern ink layer acts in combination with the surface protective layer, in view of direct contact therebetween, and in view of specified interaction therebetween due to materials of these layers, to provide the low-gloss region achieving the appearance of the presently claimed decorative structure.

Note, in particular, pages 19-24 of Applicants' specification. As described therein, the pattern ink layer 3 (see Fig. 1) serves for generating the difference in gloss of the pattern; and that it is suggested that resin components of the ink contained in the pattern ink layer and uncured ionizing radiation-curable resin are not completely compatibilized with each other but are kept in a suspended state and located in a portion just above the pattern ink layer, so that the suspended portion scatters light to form the low-gloss region. When the surface protective layer is crosslinked and cured while maintaining the suspended state, such a suspended state is fixed, so that the low-gloss region 4 (see Fig. 1) is partially formed in the surface protective layer, and recognized as a concave portion due to optical illusion.

Moreover, by varying coating amount of the pattern ink layer, the pattern ink layer can have an uneven ink thickness, allowing the extent of the portion visually recognized as a concave portion to be stepwise or continuously changed; and, as a result, the decorative material can exhibit a gradation pattern with a difference in

gloss which is changed stepwise, or a continuous pattern with the difference in gloss being changed continuously. See page 24, lines 8-19, of Applicants' specification.

According to the present invention, it is important that the pattern ink of the pattern ink layer and the material of the surface protective layer are in direct contact with each other and interact with each other. Note, for example, page 29, lines 13-19, of Applicants' specification.

Takahashi discloses a synchronously embossed decorative sheet including, inter alia, a pattern layer provided on the substrate, a nonpenetrable layer provided on the pattern layer, in tune with the pattern in the pattern layer, the nonpenetrable layer comprising a coating composition being nonpenetrable by an ionizing radiation curing resin; and a top coat layer provided so as to cover the layers on the substrate and to conform to the shape of concaves and convexes in the pattern layer. See column 2, lines 17-33. Note also column 2, lines 54-66. See, further, column 3, lines 1-3; and column 4, line 67, to column 5, line 3.

In Takahashi, the nonpenetrable layer 5 is formed for preventing penetration of the ionizing radiation curing resin, and is formed by an ink nonpenetrable by an ionizing radiation curing resin constituting the top coat. It is respectfully submitted that disclosure of the nonpenetrable layer 5 and of the top coat in Takahashi would have neither disclosed nor would have suggested, and in fact would have taught away from, the presently claimed decorative material, including, inter alia, wherein the pattern ink has the property of interacting with the ionizing radiation-curable resin composition to cause elution, dispersion and mixing therebetween, quite different from the ink forming the nonpenetrable layer 5 of Takahashi.

It is respectfully submitted that the teachings of the additional references as applied by the Examiner in combination with the teachings of Takahashi as the

primary reference, would not have rectified the deficiencies of Takahashi, such that the presently claimed invention as a whole would have been obvious to one of ordinary skill in the art.

Tsukada, et al. discloses a decorative sheet including a sheet having a transparent plastic first substrate sheet and a pattern-printed layer partially or wholly embedded in one or both of the surfaces of the first substrate sheet, a laminate sheet being formed by laminating a transparent plastic second substrate sheet on one surface of the above-mentioned sheet, and a sheet formed by laminating a plastic third substrate sheet having a concealing effect on one surface of the above-mentioned sheet or laminate sheet. See column 1, lines 31-42. Note also column 2, lines 3-8. See, further, column 6, lines 53-55.

Even assuming, arguendo, that the teachings of Tsukada, et al. were properly combinable with the teachings of Takahashi, such combined teachings would have neither disclosed nor would have suggested the present invention, including, inter alia, the layers in direct contact, or the property of the pattern ink of the pattern ink layer, with respect to the ionizing radiation-curable resin composition, achieving the effect as in the present claims. Again, it is emphasized that by having the surface protective layer in direct contact with the pattern ink layer, and the layers made of materials as in the present claims, including the recited property of the pattern ink of the pattern ink layer, the low-gloss regions are provided providing the beneficial visual effect of the present claims. It is respectfully submitted that the combined teachings of references as applied by the Examiner do not disclose, nor would have suggested, such materials with the direct contact, such effect achieved in combination, and advantages thereof.

Ogawa, et al. discloses an amorphous silica filler, which exhibits excellent handling properties and processability, and which, when added to a resin film, exhibits excellent dispersing properties, transparency and anti-blocking property, the amorphous silica filler being described, for example, in column 2, lines 33-45. As for properties of the amorphous silica filler, note column 3, lines 54-65, of this patent. See, paragraph bridging columns 3 and 4 of this patent, as well as column 7, lines 17-34.

Even assuming, arguendo, that the teachings of Ogawa, et al. were properly combinable with the combined teachings of the other references as applied by the Examiner, such combined teachings would have neither disclosed nor would have suggested the presently claimed decorative material, including, inter alia, wherein the surface protective layer and the pattern ink layer are in direct contact with each other, with, e.g., the pattern ink of the pattern ink layer having a property achieving the specified interaction, providing various advantages achieved by the present invention.

It is respectfully submitted that the additional teachings of Klun, et al., as applied by the Examiner, even in combination with teachings of the other references as applied by the Examiner, would have neither disclosed nor would have suggested the presently claimed subject matter.

Klun, et al. discloses protective, organic coatings for wood and other substrates, the coatings being formed from radiation-curable thermoplastic coating compositions. The disclosed compositions include normally solid, organic solvent-soluble, thermoplastic, polyethylenically-unsaturated, cellulosic polyurethane polymers as described most generally in column 3, lines 27-61 of this patent. See also the paragraph bridging columns 3 and 4 of this patent.

Even assuming, arguendo, that the teachings of Klun, et al. were properly combinable with the teachings of the other references as applied by the Examiner, it is respectfully submitted that such combined teachings would have neither disclosed nor would have suggested, and in fact would have taught away from, the presently claimed invention, including the surface protective layer and pattern ink layer being in direct contact with each other, and property of the pattern ink, and advantages thereof.

It is respectfully submitted that the combination of teachings of references as applied by the Examiner on pages 11-15 of the Office Action mailed December 13, 2007, including the teachings of U.S. Patent No. 6,558,799 to Takeuchi, et al. as primary reference, would have neither disclosed nor would have suggested the presently claimed invention.

Takeuchi, et al. discloses a decorative material for use, for example, in surface material including decorative sheets, the decorative material including a substrate having at least on its surface an active hydrogen-containing polar functional group; and, provided on the substrate, a two-component cured urethane resin layer and a surface resin layer of a crosslinked coating formed from an ionizing radiation curable acrylate resin, the two-component cured urethane resin layer having a structure of at least three layers of a first resin layer, a second resin layer, and a third resin layer provided in that order from the substrate side, the crosslinking density of the second resin layer being lower than that of the first resin layer and that of the third resin layer. See column 2, lines 13-25. Note also column 2, lines 26-31. This patent goes on to disclose that at least one of the at least three layers constituting the two-component cured urethane resin layer may function as a decorative layer. See column 3, lines 48-53. Note also column 4, lines 31-36.

Takahashi has been previously discussed.

It is emphasized that in Takeuchi, et al., the layer 2C, in contact with the surface resin layer 3, is described as having a relatively high crosslinking density, and is not disclosed as a patterned layer partially (selectively) provided on the substrate. It is respectfully submitted that the teachings of Takeuchi, et al., even in combination with the teachings of Takahashi, would have neither taught nor would have suggested the pattern ink layer formed on part of the substrate, in direct contact with the surface protective layer, the pattern ink having the property specified in the present claims, and advantages thereof, particularly with such pattern ink layer generating the low-gloss region, as in the present claims.

Moreover, it is emphasized that according to Takeuchi, et al., the third layer 2C in contact with the surface protective layer comprises a two-component cured urethane resin. And according to Takeuchi, et al., the third layer 2C has a higher crosslinking density. In contrast, according to the present invention the pattern ink forming the low-luster pattern ink layer contains, e.g., non-crosslinked urethane resin, noting particularly claims 2 and 29. The cured two-component urethane resin in Takeuchi, et al. has a three-dimensionally crosslinked network molecular structure, different from the non-crosslinked urethane resin of various aspects of the present invention, having a linear molecular structure. Moreover, it is again emphasized that according to the present invention the pattern ink has the property of interacting with the ionizing radiation-curable resin composition. As can be seen from the foregoing, the structure according to the present invention is different from, and would not have been obvious over, the teachings of Takeuchi, et al., even in light of the teachings of secondary references as discussed infra.

That is, it is respectfully submitted that the additional teachings of Takahashi as applied by the Examiner on pages 11-13 of the Office Action mailed December 13, 2007, and further teachings of Tsukada, et al., as applied on pages 13-15 of this Office Action mailed December 13, 2007, would not have rectified the deficiencies of Takeuchi, et al., such that the presently claimed invention as a whole would have been obvious to one of ordinary skill in the art.

The teachings of Takahashi and of Tsukada, et al., have been previously discussed.

Even combining the teachings of Takahashi with the teachings of Takeuchi, et al., and even further in view of the teachings of Tsukada, et al., such combined teachings would have neither disclosed nor would have suggested the presently claimed invention, including the pattern ink layer formed on a part of the substrate, in direct contact with the surface protective layer, with the pattern ink having the property of interacting with the ionizing radiation-curable resin composition for forming the surface protective layer to cause the recited elution, dispersion and mixing, and with the pattern ink layer serving to generate the difference in gloss in the surface protective layer above the pattern ink layer and above other portions of the substrate; and/or other features of the present invention as in dependent claims, and advantages of the present invention.

In view of the foregoing comments and amendments, and further in view of the concurrently filed RCE Transmittal, entry of the present amendments, and reconsideration and allowance of all claims presently pending in the above-identified application, are respectfully requested.

To the extent necessary, Applicants hereby petition for an extension of time under 37 CFR 1.136. Kindly charge any shortage of fees due in connection with the

filing of this paper, including any extension of time fees, to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Account No. 01-2135 (case 396.46088X00), and please credit any overpayments to such Deposit Account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

By /William I. Solomon/
William I. Solomon
Registration No. 28,565

WIS/ksh
1300 N. 17th Street, Suite 1800
Arlington, Virginia 22209
Tel: 703-312-6600
Fax: 703-312-6666